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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,855	09/23/2003	Torsten Niederdrank	P03,0381	3145

26574 7590 03/12/2007  
SCHIFF HARDIN, LLP  
PATENT DEPARTMENT  
6600 SEARS TOWER  
CHICAGO, IL 60606-6473

EXAMINER
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ART UNIT	PAPER NUMBER
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2615

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/12/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/668,855

Applicant(s)

NIEDERDRANK ET AL.

Examiner

Lun-See Lao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Introduction*

1 This action is IN response to the APPLICATION 10/668,855 filed on 09-23-2003.

Claims 1-14 are pending.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 2-4 and 9-11 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The claimed limitation "the estimation device is configured to detect a first signal portion and a second signal portion from the input signal, to generate an estimated signal for the second signal portion utilizing a model from the first signal portion, and to determine an estimated value from a difference of the estimated signal and the second signal portion" was not clearly supported in the further detail in the specification nor in any claim originary presented, a model from the signal portion pointed out by applicant is not enough support for this claim limitation ( see specification page 5 [0018]-page 6[0019] and see figs. 2-6).

Consider claims 9-11 are essentially similar to claims 2-4 and are rejected for the reason state above apropos to claims 3-4.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 5-6 and 8, 12-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Williamson et al. (US PAT. 5,091,952).

Consider claim 1 Williamson teaches a device (see fig.6) for feedback compensation in hearing devices, comprising:

a signal input device (300) configured to acquire an input signal that is influenced by a feedback (acoustic feedback);

a feedback reduction device (+, - sign, (309)) for adjustable reduction, compensation, or damping of the feedback, and

a signal output device (304) configured to output an output signal with a reduced feedback portion; and

an estimation unit (310) that is connected between the signal input device (300) and the feedback reduction device (+ -, sign, 309), and with which an estimated value of a system distance (delay, 308 and see col. 8 line 8 line 6-9) that is defined by a distance of loop gain of the feedback system to its predetermined stability limit can be

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determined from the input signal, such that parameters of the feedback reduction device are controllable using the estimated value (see col.8 line 1-col. 9 line 36).

Consider claims 5-6 Williamson teaches that the feedback reduction device (see fig.6 (+- sign, 309)) comprises a feedback compensator (see fig.6 and col. 8 line1- 68), and the feedback reduction device (see fig.6 (+, - sign, 309)) comprises an amplification/compression control (see fig.6 and col. 8 line1- 68).

Consider claims 8 and 12-13 are essentially similar to claims 1 and 5-6 and are rejected for the reason state above apropos to claims 1 and 5-6.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williamson et al. (US PAT. 5,091,952) in view of Wagner (US PAT. 4,845,757).

Consider claim 7 Williamson fails to teach that the feedback reduction device comprises at least one oscillation detector and at least one narrow-band filter device to suppress oscillations based on the estimated value.

However, Wagner teaches that the feedback reduction device (see fig.1 (4)) comprises at least one oscillation detector (6) and at least one narrow-band filter device

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(8 and see col.6 line 7-23) to suppress oscillations based on the estimated value (see col. 2 line 66-col. 3 line45).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Wagner into Williamson to improve the voice signal.

Consider claim 14 is essentially similar to claim 7 is rejected for the reason state above apropos to claim 7.

### ***Conclusion.***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hansen (US PAT. 5,619,580) is cited to show other related the feedback compensation for hearing devices with system distance estimation.

9. Any response to this action should be mailed to:

Mail Stop \_\_\_\_ (explanation, e.g., Amendment or After-final, etc.)

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Facsimile responses should be faxed to:  
**(703) 872-9306**

Hand-delivered responses should be brought to:  
Customer Service Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lao,Lun-See whose telephone number is (571) 272-7501 The examiner

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can normally be reached on Monday-Friday from 8:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian, can be reached on (571) 272-7848.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 whose telephone number is (571) 272-2600.

Lao, Lun-See *L.S.*  
Patent Examiner  
US Patent and Trademark Office  
Knox  
571-272-7501

Date: 02-28-2007

  
VIVIAN CHIN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600